

**REMARKS**

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 1-7 and 16-20 have been allowed and Claims 8-15 have been rejected. Claims 8 and 15 have been amended, and new Claims 21-23 have been added to present claims of varying scope. No new matter has been added. Accordingly, Claims 1-23 will be pending in the present application upon entry of this Amendment and Reply.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

**Claim Rejections – 35 U.S.C. § 103(a)**

On page 2 of the Office Action, Claims 8-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,204,179 to McTeer. The Applicants respectfully traverse this rejection.

Claim 8 (as amended) recites “providing a first anneal at a temperature less than 100°C for a period of greater than 8 hours to form large grain sizes in the copper material, the large grain sizes being between approximately 2,500 and 10,000 angstroms.”

McTeer does not teach or suggest the use of a first anneal at a temperature less than 100°C for a period of greater than 8 hours. In contrast, McTeer states at column 17, lines 48-58 (with underlining added for emphasis):

The copper layer is then annealed by subjecting the silicon substrate so formed to an elevated temperature in a vacuum for a period of time less than 5 minutes. Alternatively, the anneal may be carried out by flowing in gases, such as hydrogen. After annealing, the copper is then caused to reflow at a temperature greater than about 500°C by techniques well known to one of ordinary skill in the art.

The rejection of Claims 8-15 should be withdrawn, because at least one limitation of independent Claim 8 (and corresponding dependent Claims 9-15) is not taught or suggested

by McTeer. Accordingly, the Applicants request reconsideration and withdrawal of the rejection of Claims 8-15 under 35 U.S.C. § 103(a).

New Claims 21-23 depend from Claim 8 and are allowable for at least the same reasons as described above with respect to Claim 8.

The Applicants also note that other claims are allowable for additional reasons. For example, Claim 15 recites “the first anneal occurs at a temperature of approximately 60°C” and Claim 23 recites “the first anneal is performed at a temperature of 80°C or less.” Anneals at temperatures such as these are not taught or suggested by McTeer.

Claim 21 recites “wherein the first anneal is for a period of between 8 and 24 hours.” As described above, McTeer discloses an anneal for less than 5 minutes (see above excerpt).

Claim 22 recites “the second anneal is performed at a temperature between 250°C and 350°C.” Such an annealing temperature for a second anneal is not taught or suggested by McTeer.

The Applicants respectfully request consideration and allowance of Claims 15 and 21-23, since at least one element of such claims is not taught or suggested by McTeer.

\* \* \*

It is submitted that each outstanding objection and rejection to the Application has been overcome, and that the Application is in a condition for allowance. The Applicants request consideration and allowance of all pending Claims 1-23.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to

Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

Date 7/11/2005

By 

FOLEY & LARDNER LLP  
Customer Number: 26371  
Telephone: (414) 297-5564  
Facsimile: (414) 297-4900

Marcus W. Sprow  
Attorney for Applicants  
Registration No. 48,580